REMARKS

Claims 15-19 are pending in this application. By this Response, claims 15, 16, 18 and 19 have been cancelled without prejudice to later prosecution. Attached hereto is a complete listing of all the pending claims with their current status listed parenthetically.

Rejection Under 35 U.S.C. § 102(e)

In paragraphs 1 and 2 of the Office Action, the Examiner rejects claims 15, 16, 18 and 19 under 35 U.S.C. §102(e) as being anticipated by U.S. published patent application 2002/0018458 ("Aiello").

As claims 15, 16, 18 and 19 have been cancelled, this rejection is now moot.

Rejection Under 35 U.S.C. § 103(a)

In paragraphs 3 and 4 of the Office Action, claims 15-19 again stand rejected as unpatentable under 35 U.S.C. § 103(a) over U.S. patent 5,677,927 ("Fullerton") in view of U.S. Patent 6,243,375 ("Petch"). Applicant respectfully traverses this rejection.

In the Response to Arguments section, the Examiner explains her maintained rejection by stating:

> In order to clarify that without affecting the overall system performance and within skills of one skilled in the art, the synchronization of the clock signals of the base station and mobile units can be achieved by initializing the clocks of the mobiles units [sic] based on the base station's master clock signal **prior to UWB technology being deployed** into operation wherein a conventional carrier wave technology, **different than UWB technology** can be utilized to achieve such the synchronization [sic], the examiner now additional cited [sic] Fullerton et al (6,133,876) (now referred to as Fullerton et al II). In Fullerton et al II, without affecting the overall system performance, the synchronization of the clock signals of a station (O) and two units (1304) and (1308) can be achieved by initializing the clocks of the two units based on station's [sic] master clock signal **prior to UWB technology being deployed** into operation wherein a conventional carrier wave technology, **different than UWB technology** can be utilized to achieve the synchronization. [emphasis added]

As far as Applicant can tell, the Examiner appears to be making an argument that it is known in the art that conventional carrier wave systems teach synchronization: "**prior to UWB technology being deployed** into operation wherein a conventional carrier wave technology, **different than UWB technology** can be utilized to achieve the synchronization."

However, **APPLICANT IS CLAIMING UWB TECHNOLOGY** (claim 17: "ultra-wideband spread spectrum signals"). The Examiner's concluding statement "wherein a conventional carrier wave technology, different than UWB technology can be utilized to achieve the synchronization" ONLY SUPPORTS APPLICANT'S ARGUMENT THAT CLAIM 17 IS NOVEL, AS ITS ELEMENTS ARE NOT TAUGHT BY FULLERTON, PETCH OR FULLERTON ET AL II. This is because the Examiner concludes that her cited references teach synchronization using conventional carrier wave technology, whereas Applicant's claim 17 recites, in part, the use of ultra-wideband technology.

Put differently, the Examiner is either COMPLETY DISREGARDING RECITED CLAIM ELEMENTS ("ultra-wideband spread spectrum signals"), or is PRESENTING ARGUMENTS THAT CONVENTIONAL CARRIER WAVE TECHNOLOGY CAN BE USED INSTEAD OF APPLICANT'S RECITED UWB CLAIM ELEMENT, AND THUS THIS CLAIM ELEMENT CAN SOMEHOW BE IGNORED.

Applicant again submits that **UWB TECHNOLOGY, AS TAUGHT IN FULLERTON, AND CONVENTIONAL CARRIER WAVE TECHNOLOGY, AS TAUGHT IN PETCH ARE COMPLETELY INCOMPATIBLE TECHNOLOGIES, AND TO COMBINE THE TEACHINGS OF FULLERTON WITH PETCH IS TO**

COMPLETY IGNORE THE INSURMOUNTALBE PRACTICAL PROBLEMS OF ACTUALLY DOING SO.

As presented in Applicant's May 25, 2005 response, Fullerton teaches ultra-wideband, or impulse radio communication, which uses discrete electromagnetic pulses that may occupy bandwidths spanning hundreds of megahertz. Specifically, Fullerton teaches Gaussian monocycles having: a 0.5 nanosecond pulse width; a 2 gigahertz center frequency; and which occupy a bandwidth of approximately 160% of the center frequency **(*i.e.*, 3.2 gigahertz)** [col. 8, lines 24-57].

In contrast, Petch teaches conventional communication that uses a substantially continuous sinusoidal carrier wave that operates at specific, assigned radio frequency channels. Specifically, Petch teaches methods and apparatus for synchronization in a wireless network where the wireless network is a conventional cellular network that access a conventional public switched telephone network (col. 1, lines 11-22). As is well known, conventional cell phones employ a continuous carrier wave at a specific frequency, such as 700 MHz, or 800 MHz, and generally have about a **1.5 MHz bandwidth**.

How would a Petch cell phone, looking for a 1.5 MHz-wide continuous carrier wave signal, receive a 3.2 GHz-wide series of pulses? How would a Fullerton receiver, looking for discrete electromagnetic pulses, receive a continuous carrier wave?

Conclusion

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, issuance of claim 17 at an early date is solicited. No fee is believed due with this response. However, the Commissioner is authorized to charge any fee required to our Deposit Account No. 50-3143, in the name of Pulse-Link, Inc. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

September 21, 2005

Date

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